

PRELIMINARY REPORT

EASTERN AREA CRUISE 11

April 20 - May 5, 1967

Prepared by

Robert L. DeLong

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ITINERARY

April 20: Depart San Diego aboard R/V THOMAS WASHINGTON
20-26: Pelagic vertebrate survey work between San Diego
and Guadalupe Island
26: Elephant Seal survey on beaches of Northeast Bay
Guadalupe Island
27: Seabird survey and banding on Islote Negro, off
Guadalupe Island
28-29: Pelagic vertebrate survey work between Guadalupe
Island and Baja California
30: Rendezvous with R/V ELLEN B. SCRIPPS in Melpomine Cove,
Guadalupe Island; transfer personnel to SCRIPPS for
Guadalupe Island work

May 1: Elephant Seal survey on remaining beaches, east coast
Guadalupe Island
2-3: Fur Seal survey, Guadalupe Island
4: Conclusion of Fur Seal survey, California Sea Lion
survey on Islote Zapato
5: Arrive San Diego

INTRODUCTION

This marine vertebrate cruise, Expedition MV 67-I of Scripps Institution of Oceanography, was led by Dr. Carl L. Hubbs. Smithsonian Institution is indebted to Dr. Hubbs for the opportunity to participate. Fourteen guest scientists, including Robert DeLong of POBSP, participated in the cruise. Their names and biological pursuits are listed in Appendix I.

PELAGIC OBSERVATIONS

The areas worked by the Washington were primarily deep (1000 fathoms \pm) canyons. The surface layers of these areas are generally regarded as deserts. Birds were not abundant. The northern birds which do occasionally inhabit this cold-water area apparently had returned to the northern breeding grounds. The southern hemisphere birds that are known from the general area had not yet arrived. Also, most of the local seabirds were nesting at this time. This, of course, limits their radius of movement. These factors as well as the environment contribute to the low density of birds in the area.

The California Current pushes masses of cold water down into this area from the north. The activity of the Current is demonstrated by the presence of fresh, drifting Bladder Kelp (Nereocystis and Macrocystis) which occur only north of Point Conception. The kelp, blown loose by storms, was carried south by the California Current.

The pelagic marine vertebrate work primarily involved fish. Fish were caught at depths of over a thousand fathoms by using anchored vertical sets and horizontal free vehicle gear. The free vehicle sets are carried to the bottom by disposable anchors which are connected to the gear by a magnesium link. The magnesium link is milled to such a size that it will oxidize completely in about 12 hours, freeing the fishing gear. The gear is buoyed and upon release from the anchors floats to the surface. Trawls, both deep- and mid-water, were also used in sampling fish populations.

Deep-water fishing was done daily. The very nature of this fishing keeps the ship in the same area for extended periods. Much time was spent waiting for free vehicle gear to surface and searching for it. The search patterns were not charted because of repeated traversing of the same water. Thus, linear mileages were not recorded. Densities have been figured on a temporal basis rather than the usual birds/linear mile. I do not believe these density figures are indicative of actual populations, as continual ship activity in a restricted area, over an extended period of time, probably drives birds from the area. These data should therefore be viewed for their qualitative value, placing restrictions on quantitative interpretations.

Arctic Loon Gavia arctica

14 + 7

Fourteen birds were seen off the Coronado Islands on 5 May. These birds were all flying low over the water in a northwesterly direction. Two flocks contained 13 and 7 birds and one bird was seen flying alone. All were migrating. Dr. Carl L. Hubbs has observed the birds in migration in this area often and states that the birds are always flying northwest. He believes that the birds fly up the coast until they reach the Coronado Islands area, then head northwest, flying on through the Channel Islands and reaching land again at Point Conception where they then fly northward along the coast.

Black-footed Albatross Diomedea nigripes

This species was seen on most days. They were not abundant, and chumming failed to attract any concentrations. We attempted unsuccessfully to catch albatross for banding, using baited hook and line. Since much time was spent on station and trawling at slow speeds, it is likely that fewer albatross were attracted to the ship. Also, since we worked for extended periods in the same general locality some of the birds may have been recorded on different days.

On 29 May Black-footed Albatross were observed feeding on red crabs (Pleuroncodes planiceps). These crabs apparently came to the surface with the scattering layer the night before and remained near the surface until mid-morning.

On 27 April one bird followed the ship briefly. The ship was traveling about one and one-half miles offshore of Guadalupe Island. The bird did not continue to follow when the ship put into Northeast Bay, Guadalupe Island.

Laysan Albatross Diomedea immutabilis 1

On 24 April at 2217 hours one Laysan Albatross was seen at 29-36 N, 117-26 W. A trawl was being put in the water from the well-lighted fantail of the Washington. The bird made several passes by the fantail but did not stay with the ship when she got underway.

| | | |
|------------------------------|-------------------------|---|
| Sooty Shearwater | <u>Puffinus griseus</u> | 7 |
| Sooty/Slenderbill Shearwater | <u>Puffinus</u> sp. | 5 |

Small numbers of Sooty Shearwaters were seen 20 through 23 April while working in the deep water (1000 fathoms \pm) northeast of Guadalupe Island. Identifications are believed good as the brilliant white underwings were seen. On 23 April two Sooty Shearwaters were flushed from the surface of the water by the approaching ship. None of the birds seen were thought to be migrating.

Of five birds called Sooty/Slenderbills, one seen on 21 April was probably a Sooty; however, the underwings were not seen. The other four birds were recorded as Slenderbills by Dr. Hubbs at 0523 on 5 May just off the Coronado Islands.

Black-vented Shearwater Puffinus puffinus opisthomelas 2,521

This Shearwater is now breeding on Islote Negro, a small islet, off the west coast of Guadalupe Island. The birds also breed at this time on Isla Cedros and Isla Natividad which are off Point San Eugenia, Baja California. These islands are located about 170 miles east by southeast of Guadalupe. Thus the area in which we were working was north and between two breeding concentrations. Despite our proximity to the breeding islands, numbers observed at sea were small. However, 2500 of this species were seen on 29 April off the south end of Guadalupe Island. The birds were feeding in a large flock about two miles east of Islote Zapato. A discussion of this flock is included in the account for this species in the accompanying report on Guadalupe Islands.

This subspecies is markedly different from the Newell Shearwater subspecies of Hawaii. The flight pattern is different, but besides this variable characteristic, the coloration of the two birds would never be confused. The upper surface of the Newell is a clear black whereas that of the Black-vented is a brownish-black. The Black-vented also has more dark coloration below the eye and on the neck, lacking the sharp dividing line of black and white found in the Newell. Most distinctive is the dark crissum which gives P. p. opisthomelas its common name.

Pink-footed Shearwater Puffinus creatopus 1

One bird was identified as being of this species on 21 April. The large size, contrasting dark upper-parts and light lower-parts, and the slow, lazy flight were recorded. It was, however, recorded with a reliability of three, as I am not thoroughly familiar with this species. An additional sighting of a shearwater/petrel on 5 May off the Coronados may have been this

species. The size, flight pattern, and contrasting upper and lower body colors were noted, but the bird was not seen close enough to be sure.

Black Petrel Loomelania melania 8

Five of the birds were seen at sea on two different days. The remaining were seen on 5 May just off the Coronado Islands where they breed.

Leach Storm Petrel Oceanodroma leucorhoa 12

Subspecific identification of O. leucorhoa is perplexing if not impossible. There are definitely three subspecies (O. l. beali, chapmani, socorroensis) which breed in the area and are found at sea. There are an additional two subspecies (O. l. willetii and kaedingi) occurring in the area -- the subspecific status of which has not been resolved. The nominate race may also occur here at times.

Five birds were definitely identified as being of this species. All of these had little or no white on the rump. An additional eight birds were seen and recorded only as storm petrel sp. It is probable they are of this species but I am not familiar with the Ashy Petrel (Oceanodroma homochora) which breeds in the Coronados and north and some of the sightings may possibly belong to this species.

Red-billed Tropicbird Phaethon aethereus 1

The Red-billed Tropicbird was seen on 24 April at 29°30'N, 117°18'W. This bird flew around the ship for some time giving several people a very good look at it. At sunset another tropicbird was seen. The bird was over a mile away but as we were still in the same area it is probable that it was the same bird.

Cormorants sp. Phalacrocorax sp.

One bird was seen on 5 May off the Coronado Islands.

Glaucous-winged Gull Larus glaucescens 1

One bird was seen on 20 April at approximately 31°50'N, 117°49'W.

Western Gull Larus occidentalis 441

Western Gulls were seen most days while at sea. All birds present in the area at this time appear to belong to L. o. wymani.

Sabine Gull Xema sabini 22

This small arctic breeder was in migration through the area during the entire period of the survey. All birds seen were flying in a northerly direction and low to the water. One exception was a group of five birds which flew to several hundred feet above the water and swirled for several minutes. These birds then returned to just above the surface and continued north.

While off the east coast of Guadalupe Island, on 26 April, we encountered a flock of 11 birds flying north and paralleling the island about two miles off shore.

Pomarine Jaeger Stercorarius pomarinus

4

The Jaegers were seen on two successive days. All were light-phase adult birds with twisted central retrices. Two of these birds were attracted to fish that we caught on the free vehicle gear and floating on the surface. They were not observed to feed.

Sterna sp.

3

One bird was seen on 22 May at $30^{\circ}56'N$, $117^{\circ}12'W$, and two others on 24 May at $29^{\circ}38'$, $117^{\circ}26'$ (sightings 50 miles and 85 miles off Baja, respectively). The birds were not well observed, but were small with gray backs and were probably either Forster or Common Terns.

Red Phalarope Phalaropus fulicarius

338

The birds were seen during both parts of the trip. However, the birds seen during the Washington cruise were apparently not in migration. Many of these birds were still in winter plumage, some were molting, and a few were in nuptial plumage. But by 28 April the birds had begun moving north and greater proportions of these birds were in molting or in the real breeding plumage. Apparently the birds molt the body feathers in migration. All birds handled in Bering Sea in May and June last year had completed the molt. But the question arises, do the birds ever reach the breeding grounds with the molt still in progress?

As was noted by Harrington who was working off central California from 18 to 25 April, 1967, the distribution of Red Phalaropes is local. This also seems to be true of the birds in migration. We encountered fronts or waves of birds moving north in flocks of 3 to 25 birds. An example: on 4 May north of Guadalupe Island in a 13-minute period, six flocks totaling 73 birds were seen. It was then 47 minutes before another group was encountered.

Xantus Murrelet Endomychura hypoleuca

6

The small number of alcids recorded probably does not reflect actual densities, as the birds sit on the water and spend much time feeding under water. The birds are seen only when flushed by the approaching ship. Also, the birds were breeding on Guadalupe Island at this time and may not wander far from the island to feed. This is true of alcids breeding on St. George Island, Bering Sea. Here there will be concentrations of millions of alcids feeding along tide rips within five miles of the island.

MAMMALSLittle-piked Whale Baleenoptera acutorostrata

2

Two individuals were seen, one on 23 April at $30^{\circ}49'N$, $117^{\circ}41'W$, and another on 24 April at $29^{\circ}30'N$, $117^{\circ}18'W$. Both animals were adults. The sightings are believed to represent different animals as there were small distinctions noted in coloration of the two animals. They seemed to be attracted to the ship. During both periods of observation the large fathometer was working. This equipment emits a ping at frequent intervals, and I believe it possible that the animals were attracted to this. During both observation periods the ship was stopped or moving only slightly (holding against the current).

The observation of the animal on 23 April lasted for an hour. During this period the animal stayed around the bow of the ship, swimming back and forth. This animal was never noted to blow with a visible vapor cloud. Instead it began its exhalation below the surface of the water, finished it just as it surfaced, and inhaled while the blowhole was exposed. On this animal the broad white bands on the flippers were visible each time the animal surfaced and even when it was swimming several fathoms below the surface.

The animal observed on 24 April first appeared at the fantail of the ship where it surfaced only 10-15 meters off the port side. The animal was observed by most people on the ship. The animal surfaced in a rolling motion, forcing the pointed upper jaw out of the water, the forepart of the head then submerged exposing the blowhole; as the blowhole submerged and the roll was continued, the strongly recurved dorsal appeared and was above the water for several seconds. The animal never exposed the flukes during its play. It did make several passes by the ship, swimming on its back exposing the brilliant white underneath.

Baird (Common) Dolphin Delphinus delphinus bairdii 158

This animal was seen frequently. The pods were not large, ranging from 2 to 35 animals with a mean of 9. They often came to the bow of the ship and rode the "wake" while the ship was underway at full speed. They would not stay with the ship if it was travelling at slow speeds.

Tursiops sp.

Tursiops were seen in the vicinity of Guadalupe Island where one was collected (see Guadalupe Island Report).

Otariidae

There were several sightings of eared seals, generally associated with floating kelp patches. One sighting of a pair of large sandy colored animals may have been Stellar Sea Lions (Eumetopias jubata) although these would have been far south of their normal range. On the San Benito Islands there is a light-colored race of California Sea Lion (Zalophus californianus). Since the observations of Dr. Hubbs and myself were short in duration, we discredited our initial identification of Eumatopias, and decided that the animals probably were migrant Zalophus from the San Benitos.

TABLE 1. Daily summary of birds and mammals observed at sea on EAC #11
20-29 April and 4-5 May 1967

| Species | April | | | | | | | | | | | May | | TOTAL |
|-----------------------------------|-------|------|------|------|------|------|-----|-----|-----|------|-----|-----|------|-------|
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 4 | 5 | | |
| Arctic Loon | | | | | | | | | | | 14 | | 14 | |
| Black-footed Albatross | 1 | 4 | 3 | 2 | - | - | - | - | 2 | 4 | - | - | 16 | |
| Laysan Albatross | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 | |
| Shearwater/Petrel | 5 | - | 1 | - | - | 1 | - | - | - | - | - | - | 7 | |
| Sooty Shearwater | 1 | 2 | 1 | 2 | 1 | - | - | - | - | - | - | - | 7 | |
| Sooty/Slenderbill | - | 1 | - | - | - | - | - | - | - | - | - | 4 | 5 | |
| Pink-footed Shearwater | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 | |
| Black-vented Shearwater | 2 | - | - | - | 4 | 3 | 14 | 4 | - | 2500 | - | - | 2527 | |
| Black Petrel | 2 | - | - | - | 1 | - | - | - | - | 3 | - | 3 | 9 | |
| Leach's Storm Petrel | - | - | - | - | - | - | - | - | - | 3 | - | 2 | 5 | |
| Storm petrel sp. | 2 | 2 | - | 2 | - | 1 | - | - | - | - | - | - | 7 | |
| Red-billed Tropicbird | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 | |
| Cormorant sp. | - | - | - | - | - | - | - | - | - | - | - | - | 1 | |
| Shorebird sp. | - | 14 | 1 | - | - | - | - | - | - | - | - | - | 15 | |
| Red Phalarope | 49 | 9 | 100 | 28 | 17 | 18 | - | - | 34 | - | 83 | - | 338 | |
| Pomarine Jaeger | - | - | 1 | 3 | - | - | - | - | - | - | - | - | 4 | |
| Glacous-winged Gull | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 | |
| Western Gull | 2 | 1 | 7 | 4 | 2 | - | 2 | 20 | - | 1 | - | 403 | 442 | |
| Sabine Gull | - | 5 | - | - | 1 | 2 | 13 | - | - | 1 | - | - | 22 | |
| Gull sp. | 8 | - | - | - | - | - | - | - | - | - | 5 | - | 13 | |
| Tern sp. | - | - | 1 | - | - | - | - | - | - | - | - | - | 3 | |
| Xantus Murrelet | - | 3 | - | - | - | - | 2 | - | - | 1 | - | - | 6 | |
| Bird sp. | 2 | 1 | 1 | - | 1 | 1 | - | - | - | - | - | - | 0 | |
| TOTALS | 75 | 43 | 116 | 41 | 31 | 26 | 31 | 24 | 36 | 2513 | 88 | 427 | 3451 | |
| Otariidae | - | - | 3 | - | - | - | - | - | - | - | - | 1 | 4 | |
| Baird's Dolphin | 15 | 42 | 62 | - | 15 | - | - | - | - | 20 | 1 | 3 | 158 | |
| Tursiops | - | - | - | - | - | - | 12 | 10 | - | - | - | - | 22 | |
| Little Piked Whale | - | - | - | 1 | 1 | - | - | - | - | - | - | - | 2 | |
| Whale sp. | - | - | - | - | - | - | 1 | - | - | - | - | - | 1 | |
| Hours of Diurnal Observation | 9.9 | 10.4 | 11.9 | 11.5 | 11.2 | 10.1 | 8.1 | 0.2 | 9.8 | 10.4 | 4.1 | 1.0 | 98.7 | |
| Hours of Nocturnal Observation | | | | | | | 0.5 | | | | | | | |

TABLE 2. Summary of Temporal Bird Density, EAC #11
April-May 1967

| Species | Total Number | Birds/hr. |
|------------------------------|--------------|-----------|
| Arctic Loon | 14 | .014 |
| Black-footed Albatross | 16 | .016 |
| Laysan Albatross | 1 | .001 |
| Pink-footed Shearwater | 2 | .002 |
| Sooty Shearwater | 7 | .007 |
| Black-vented Shearwater | 2527 | 25.190 |
| Black Petrel | 9 | .009 |
| <u>Oceanodroma leucorhoa</u> | 5 | .005 |
| Cormorant sp. | 1 | .001 |
| Red-billed Tropicbird | 1 | .001 |
| Pomarine Jaeger | 4 | .004 |
| Glaucous-winged Gull | 1 | .001 |
| Western Gull | 442 | 4.420 |
| Sabine Gull | 22 | .022 |
| Tern sp. | 3 | .003 |
| Red Phalarope | 338 | 3.350 |
| Xantus Murrelet | 6 | .006 |

GUADALUPE ISLAND SURVEY

The Guadalupe Island portion of the cruise was concerned primarily with pinnipeds. The work on 26, 27 April was not planned but was substituted for pelagic work due to rough weather at sea.

The R/V Ellen B. Scripps provided logistic support for the Guadalupe Island survey work on May 1-4. Landings were made on the island from an outboard-powered skiff capably handled by Ron McConaughey, Chief Technician on the Cruise. Many of the landings were made against rocks which would certainly have torn the skiff apart had it not been expertly handled. A rubber assault raft would be very satisfactory for these landings.

Black-vented Shearwater Puffinus puffinus opisthomelas Estimated nesting pairs: 100 + 20%

This bird is breeding on Isloté Negro, although the islet is small and the habitat not ideal for procellariid nesting. The soil is volcanic material, primarily scoria. Much of this material is loosely consolidated, making digging difficult. This species is a burrow nester. The burrows have narrow entrances (4 to 7 inches) and are generally shallow but long. Burrows were found up to 18 inches deep that then went four feet parallel to the surface. The egg is deposited at the extreme end of the burrow.

Most of the birds were on eggs during our visit. Of 43 burrows examined 70% of the birds were on fresh eggs. One bird was found on a pipped egg and a few moderately incubated eggs were found.

On this visit 23 birds were banded. Dr. Hubbs has banded this species on Islote Negro since 1963. In this time either one or two hundred birds have been banded, and six returns have been taken. Thus there is to date a 3 percent return rate on these bandings. As suggested by Dr. Hubbs, (Appendix II) "this strongly indicates the integrity of the breeding population." However, one evening off the south end of the island, a feeding flock of about 2500 Black-vented Shearwaters was encountered. A concentration such as this off a breeding island suggests that the birds may be island based. However, to our knowledge the birds breed only on Islote Negro. I recall seeing a specimen in the San Diego County Museum taken in breeding condition and possibly from a burrow from the outer islet off the south end of Guadalupe. This is a second possible current breeding area, but would these two small islets support the large number of feeding birds observed off the island? Dr. Hubbs suggest that these are nonbreeding birds from Isla Natividad, the main breeding island for this species, located 180 miles southeast of Guadalupe off Point Eugenia, Baja California. The possibility exists that there are many more birds based on these two small islands than we expect. All previous work has been done during the day and, as is the case with most procellarids, nocturnal populations are much higher than are diurnal ones. A small amount of night work during the breeding season will resolve this question.

Leach Storm Petrel Oceanodroma leucorhoa

On 27 April we found only one large immature with down on the belly. This bird represents the last of the winter breeding race which has been called O. l. kaedingi. Later in the summer, a race thought to be O. l. socorroensis breeds on the island. This temporal separation of the two races was first described by Hubbs (Systematic Ecology 9 (3 & 4) 134-147, 1960.) However, the subspecies O. l. kaedingi is not accepted by some taxonomists as a distinct race from socorroensis. But the fact remains that there are at least two populations, if not races, breeding here in the same environment at different seasons.

During our visit to Islote Negro a Burrowing Owl (Speotyto comicularia) was flushed from the rocks and was seen flying around the island several times. Where the bird was originally sitting we found remains of several Oceanodroma. And as the survey continued many other Oceanodroma remains were found. The owl has done considerable damage to breeding storm petrels. One downy young was found partly eaten in the back end of a burrow. Did the owl go into that burrow and kill and eat the storm petrel there, leaving the remains? We found no indication of the owl having preyed on any of the other breeding birds.

Cassin's Auklet Ptychoramphus aleutica Estimated nesting pairs: 200 ⁺

This little alcid is a burrow-nester on Islote Negro. They reportedly dig their own burrows. On Islote Negro the burrows were seldom more than six inches deep, but were up to four feet in length. In some areas the burrows are found among burrows of Black-vented Shearwaters and Xantus Murrelets. Fresh eggs, pipped eggs, and one large immature with traces of down were found.

We were using number three bands on these birds. The bands fit well on some birds, but on others they were too large and slipped off the tarsus. Was this tarsus size variance due to sex, age, or were we handling two different races of birds? There is a second subspecies, P. a. australis van Rossem, described from the San Benito and San Roque islands.

Xantus Murrelet Endomychura hypoleuca Estimated nesting pairs: 150 ⁺

This attractive small alcid was nesting on Islote Negro. It nests in burrows and cavities in the rocks. Nests were found with one, two, and three eggs, but two seems to be the normal clutch size. There is considerable color variation in eggs from the same clutch. One clutch was found with one buffy egg and one olive-brown egg. There were also a few burrows that contained adults tending small downy young. Fifteen Xantus Murrelets were banded with Dr. Hubbs' bands on Islote Negro on 27 April.

On nights of 30 April, 2 and 3 May, Xantus Murrelets flew aboard the R/V Ellen B. Scripps. On these three nights 61 birds were banded, 25 of these with POBSP bands. Fifty-nine were banded aboard ship while anchored in Melpomine Cove, next to Outer Island where the birds breed, and two were banded in Northeast Bay. A breakdown of these birds follows:

| | |
|------------------------------|----------|
| New plumage W/brood patch | 4 |
| New plumage W/no brood patch | 20 |
| Old plumage W/no brood patch | 30 |
| Molting | 4 |
| Unknown | <u>3</u> |
| | 61 |

Obviously most of these birds were not breeding.

While these birds were being banded a great amount of variance was noted in the distribution of black about the face and eye. Also there was variation in the coloration of the back, but this is attributed to the new plumage being darker. However, the variance in the face pattern was photographed for later comparison with skins. It is possible that this variance is normal, but may indicate mixing of populations of the two subspecies that are present in this area.

Accipiter sp.

On 2 May as we were concluding the Fur Seal survey along the east coast, a large accipiterine hawk was seen soaring over the cliffs several hundred feet above. The light was from the west so the bird presented only a silhouette. The size of the bird suggests that it may have been a Cooper Hawk, but the nature of the sighting does not constitute a record.

Tringa sp.

During the Fur Seal survey along the east coast of Guadalupe Island a "small" shorebird was flushed. At the time I noted the bent-winged flight of the bird and size. Again, the nature of this sighting would not constitute a record.

Wandering Tattler Heteroscelus incanum

This shorebird was found in low density during the work on Guadalupe. They are found singly along stretches of rocky coastline. Dr. Hubbs states that they have been present on all visits at all seasons of the year.

Burrowing Owl Speotyto cunicularia

The sighting of this bird is discussed under the account of Oceanodroma leucorhoa which is presently its prey species.

White-throated Swift Aeronautes saxatalis

One bird was seen on Islote Negro on 27 April.

Anna Hummingbird Calypte anna

This bird reportedly came with the recent introduction of the wild tobacco. This seems to be its primary food source. There is however an endemic tobacco on the island.

Rock Wren

Salpinctes obsoletus guadeloupensis

Several birds were seen on Islote Negro on 27 April. They are also common along the rocky coastline of Guadalupe Island.

House Finch

Carpodacus mexicanus

This bird is common locally along the coasts of Guadalupe Island.

Mammals

A paper now in preparation by Peterson, Hubbs, and others, summarizes and expands on work done during this trip as well as drawing from data collected previously. A few additional notes follow:

Mirounga angustirostrus

During our work on this species on Guadalupe Island scars were noted. They are circular in shape and primarily occur on the back of the animal. They looked like gunshot wounds and we discussed this possibility, but as many of the scars are on the midline of the back it seemed probable that any bullet entering that portion of the body would hit the vertabrate and kill or cripple the animal. The cause of these scars was left undecided. Recently while working on the Hawaiian Monk Seal (Monachus schauinslandi) the same type of scar was noted on this species. K. C. Balcomb mentions in a preliminary report (P.O.B.S.P., Smithsonian Institution, Not published) that the scars are believed to be the result of wounds inflicted by bites of moray eels. That both animals spend much time in shallow water among rocks and coral (the haunts of the moray eel) respectively makes this a good possibility.

Delphinus delphinus bairdi

On 29 April a pod of about 20 common dolphin were seen associated with the feeding flock of 2500 Black-vented Shearwaters at the south end of Guadalupe Island.

Tursiops sp. (Pacific Bottle-nosed Dolphin)

Tursiops were seen off the east shore of Guadalupe on nearly every day of our stay. After two attempts had failed, on 3 May we finally collected a specimen. The animal was shot with buckshot from the Scripps and recovered with the skiff. This was the first known record of Tursiops in the area of Guadalupe Island. The animal was also thought to have both behavioral and morphological characteristics distinguishing it from Tursiops gilli found along the coast. Complete measurements were taken and the entire skeleton was roughed out and is now in the San Diego County Museum awaiting identification.

Ziphius cavirostris

Individuals of this species were seen along Guadalupe Island on two occasions during the survey. They have been recorded in this area previously.

ESOC 11

No Weather or Posit Sheets - data recorded on AOP Daily.

Possible entries on Sighting sheets not in memory of Paily Joy one

from Dr. Lubbs' running notes.

20 April 1967

Washington 3 TAC #11
Scroops N N28°
29°

MV 67 I A-B

DE LONG, ROBERT L.

1967-IV, V

O

| Time | Species | # | Dir. | Remarks |
|------------|--|-----|------|--|
| 0515 | S.R. begin obs. | | | |
| 0530 | Gull sp. (large) | 1 | SW | imm. bird - light belly/poor |
| 0545 | Puffinus sp. <u>gullibundus</u> | 1 | N | contrasting Dark head, light belly. Underwing not seen. Now, on the water & long st. |
| 0550 | Western Gull | 1 | SW | following Ship Ad. |
| FF 0555 | Shear/Pets. | 5+ | SW | { |
| | Gulls sp. | 2+ | SW | Feeding over a school of feeding fish. |
| 0602 | Red Phalarope | 1 | SW | |
| 0615 | Puffinus sp. <u>gullibundus</u> | 1 | W. | seen as above low flight with some flaps of glides. No wing. |
| 0615 | W-W Gull | 1 | S | Ad. |
| 0620 | TB-F Albatross | 1 | - | following - provided from Navy obs. ^{no longer} |
| 0640 | Gull sp. - | 2 | SE | imm. Hunger Water. |
| 0645 | Red Phalarope | 35± | SW | - imm. bird will fly to land class. |
| 0705-0730 | Rockfowl | | | |
| 0820 | Gull sp. | 1 | S | Large: Adult. |
| 0835 | Black Petrel | 1 | S | Relatively g. g.; have wing bars |
| 0845 | | | | De Hulst spots a clump of <u>Nucca</u> ^{is gradually} ^{found only} ^{North of} ^{Point Conception} |
| 0900 | Sooty Shearwater | 1 | N | White underwing seen well. |
| 0910 | Black Petrel | 1 | SW | - one on high Relatively g. g. |
| 0930 | At all stops ^(checked for 20 min) walking on beach. A Herring to spread a food ^{water} over the area | | | |
| 0935 | Western Gull | 1 | SW | |
| 1040 | still at All Stays - plane abs. tenserly. | | | |
| 1330 | Resume stop obs. - The Deep Bay is now being set. (described ^{1000 F.S.} with set) | | | |
| 1430 | Underway @ 160° | | | |
| 1545 | | | | BF Albatross - apparently same bird |
| 1550 | Storm Petrel | 2 ✓ | SW | comes over 30-45 minutes. |
| 1600 | Birds sitting on Kelp bed | 2 | | One definitely all black. |
| | | | | Ad Brown headed grey on back a possibly gull and/or even reminiscent of a Sooty. |

(2)

| | | | | |
|-----------|----------------------------|------|--------|---|
| 1610 | Gulls sp. | 1 | on Hol | Adult. Cl, Hung, adular, or New Gull. |
| 1650 | Gull sp. | 1 | | Imm. |
| 1700-1730 | Supper. - Close obs. | | | |
| 1730 | Red Phalarope | 1 | w | Identified by Coll. |
| 1745 | Phalarope sp. - | 2 | w | Rel with a reliability of 2 or 3 |
| 1805-1812 | Baird (common) Dol. Lin. ✓ | 15±3 | 888 | Caught this a gull rd side from the 3 km west of the Warting ton. |
| 1820 | Phalarope | 10±3 | w | |
| 1828 | SS - Clouds. | | | |
| | | 90 | | |

21 April

(3)

| Time | Species | ♂ | ♂ | Remarks |
|-----------|---|------|--------------------------------|--|
| 0600 | begin obs. | | | |
| 0610 | Western Gull | 1 | N | Instinct. Adult plumage with a few dark feathers running on the tail. |
| 0620 | Redrs. | 1 | | |
| 0650 | Shorebird sp | 1 | W | seen briefly swimming first; only two come to the ship |
| 0655-0700 | Baird's Dolphin | 20±5 | E | |
| 0700-0715 | Br. frig. | | | |
| 0815 | Alcid ^{Antarctic} manx ^{petrel} petrel ^{petrel} | 2 | SB | Small - black. (Puffin x on the Mount) |
| 0845 | <u>BF - Albatross</u> | 1 | | An albatross, probably the same as yesterday around this morning. |
| 0900 | BF Albatross | 3 | | When we stopped on the French Fr. the next birds appeared & fed on fish. |
| 0925 | Alcid ^{Antarctic} manx ^{petrel?} | 1 | out. 11 | Probable Xantus manx or ^{Puffin} manx ^{petrel} |
| 1100 | Storm Petrel | 2 | 8.888 | Now white seen definitely but may have been present |
| 1115-1145 | <u>Lunch</u> <u>Clouds</u> . | | | |
| 1145-1245 | <u>halibut</u> <u>deep</u> <u>100 fathoms</u> <u>set.</u> | | | |
| 1400 | resume auditory & obs. | | | |
| 1420 | Red Phalaropes | 9 | ON Halt | One bird coming into mustard plumage |
| 1435 | Baird's Dolphin | 20 | com dis. | remainder were all gray. |
| 1510 | Sooty Shearwater | 2 | N | Long (Californian) fly & fish |
| 1540 | Baird's Dolphin | 2 | Came 3 840 | |
| 1645 | small gulls? ^{Salvin} petrel ^{petrel} | 5 | | swimming high - dark leading edges giving no light on body below. Dark somewhat on head. |
| 1645 | Shorebird sp | 3 | | <u>Flying fish by law</u> |
| 1646 | Sooty Shearwater (5/6) | 1 | 5 | |
| 1647 | Shear pet. (Pink footed Shear) ^{petrel} | 1 | <u>Puffin</u> <u>petrel</u> | Large, Brown back, patch behind eye white belly & chin, white underwings |
| 1715-1730 | close for Sappho | | | |
| | Albatross above throughout day. (15) | | | |

1735-1825 - pet stop - helped set.

22 April 1967

| Time | Species | | | |
|------|------------------------------------|--------|-----------------------------|--|
| 0512 | Sun Rise | | | |
| 0600 | begin Obs. | | | |
| 0601 | Western Gull | 1 | 888 | Ad., pink feet. |
| 0605 | " | 1 | | Ad. |
| 0615 | Shear/Petrel | 1 | NE | High arching, showed contrast of white or dark. |
| 0620 | Red Phalarope | 1 | 888 | Flight pattern suggested Sooty Shearwater but bird is up upright will last more arching. |
| 0625 | " | 4 | on Hill | around floating kelp. |
| 0650 | Red Phalarope | 5 | Flyng & Sitting on kelp. | |
| 0655 | Western gull | 2 | 888 | 1 Ad; 1 imm |
| 0700 | Jaeger (puffin) | 1 | 888 | overall; Adult bird; at long wing L feathers. |
| 0703 | B-F Albatross | 1 | | Following ship. |
| 0715 | Red Phalarope | 1 | 888 | |
| 0725 | Red Phalarope | 15 ± 3 | 8888 | Several groups flying & landing |
| 0732 | " | 10 ± | 888 | small groups 1, 2, 3, 4 |
| 0737 | " | 1. | on Hill | |
| 0740 | " | 6 | 888 | |
| 0743 | Western gull | 1 | 888 | Ad. |
| 0745 | Water Red Phalarope | 7 | 888 | |
| 0800 | (Have had considerable amounts of) | | | Macrocystis (the small kelp) floating in pods. |
| 0810 | Red Phalarope | 2 | 888 | From or water. |
| 0811 | " | 1 | 8888 | |
| 0815 | " | 5 | 8888 | |
| 0820 | " | 2 | 888 | |
| 0840 | " | 5 | on Hill | two inverted plunges |
| 0855 | Red Phalarope | 3 | on Hill | near large patch of Macrocystis |
| 0910 | " | 10 | 888 | small groups. |
| 0941 | " | 2 | on Hill | Kestrel of kelp; feeding on jelly fish on surface. |
| 0942 | | | | large sunbird (G) brown & tan |

22 April

(5)

| Time | Species | # | Dir. from | Remarks |
|-----------|---|------|--------------|--|
| 0930 | Baird (comm) Dol. Lin. | 7 | E to W | Came to bow but passed on. |
| 0945 | " | 5 | W | " |
| 0950 | Red Phalarope | 2 | E | BFA. Total of 2 |
| 0952 | Baird Dol. Lin. | 1 | | |
| 1015 | Red Phalarope | 1 | E | Nocturnal phalarope |
| 1045 | Western Gull | 1 | SW | Adult. |
| 1046-1115 | herring gull. | | | |
| 1115-1135 | Lunch. | | | |
| 1150 | Western gull | 1 ± | | Total of 4 Adults. |
| 1255 | Phalarope (Red) | 3 | SE to S | |
| 1310 | Bird sp. | 1 | | |
| 1355 | | | | |
| 1356 | (Phalarope) | 35±5 | | |
| | All were Delphinus! mixed with white on the dorsal of Delphinus & 2 mixing on Esquimalt gulls. | | | |
| 1401 | Red Phalarope | 4 | SW | |
| 1420 | | | | |
| 1432 | Pomarine Jaeger | 1 | SE | Naevomyctis |
| 1445 | Shearbird sp. | 1 | | Adult; fine curved tail feathers. -No id. |
| 1457 | Baird Dol. Lin. | 7 | | Came to bow. |
| 1508 | Tern sp. | 1 | N | Small sized; grey mantle, 1/2 to belly, dark cap. |
| 1538 | Red Phalarope | 2 | W | |
| 1545 | | | | Mixed pod of Delphinus, Delphinus 35±5 Layard, 2 possible S. ventralis 25±5 |
| 1600 | Red Phalarope | 3 | S | |
| 1601 | Softy Shearwater | 1 | SW | |
| 1608 | | | | Surf - 2-3 ft in diameter |
| 1615 | Red Phalarope | 5 | SW | - on water. |

| | | | | |
|-----------|---|---|------|--|
| 1620 | B-F Albatross | 1 | 811 | totally 3 on with Band. |
| 1650 | Fur Seal | 1 | 8114 | around Microsats. Band on nest young. an no longer seen by this L.D. RLD <u>5 May 1967</u> |
| 1715-1735 | Dinner | | | |
| 1740 | | | | sunfish 3-3½ ft. 0' |
| 1800 | Barb. Dolphin | 6 | | Phyis and Bow. |
| 1820 | S.S. Close abs. | | | |
| 1830 | Sooty Shear. & Pomarine Jaeger seen by Bob Waines | | | |

Not included in diurnal abs. (after Sargent.)

117
448

23 April

①

| Time | Species | # | Dir | Remarks |
|-----------|---|----|---------|---|
| 0545 | Begin obs. | | | |
| 0545 | Western gull | 1 | 888 | Adult. |
| 0600 | Red Phalarope | 3 | 888 | |
| 0608 | " | 10 | " | |
| 0612 | Western Gull | 1 | 888 | - total of 2 adults |
| 0655 | B-F Albatross | 1 | 888 | - one flying |
| 0710 | B-F A. | 1 | | 2 flying - now on free wheel |
| 0715 | Pomarine Jaeger | 1 | and 888 | ret-ating fast |
| 0740 | | | | underway 090° @ 10 Km. (changed 10 min later) |
| 0810 | Red Phalarope | 1 | | |
| 0810 | | | | The Jaeger is still about. |
| 0833 | | | | Albatross |
| 0834 | | | | " |
| 0838 | Red Phalarope | 1 | | Normal plumage. Flying low and |
| 0900 | Western gull | | | to the north. Do they sing when? |
| 0900 | Mammals. | | | Came upon a floating raft of Macrocystis |
| | | | | that was about 15×25 ft. Along side |
| | | | | this there were two mammals. I believe they were |
| | | | | Steller Sea Lions. If so it represents a southern |
| | | | | extension for the species. Will return to attempt |
| | | | | collecting one of the animals. |
| 1010 | Possible Bif. What is what about we went 1:1 and collected F. S. M. collecting | | | Have been stopped for past 10 min to have free wheel set. Now underway at 000° @ 10 Km. wheel free-wheel |
| 1030 | Pomarine Jaeger | 2 | on 888 | Ad. |
| 1045 | | | | adults avoid free wheel set. underway to return course |
| 1100 | | | | ' Flying fish. (californicus) |
| 1135-1155 | Lunch closed. | | | |
| 1155 | | | | off Archer buoy - will pull. |

| | | | | |
|-----------|---------------------|---|---------|---|
| 1215 | | | | Floating <u>Pelagophycus</u> - well decomposed |
| 1230 | Western gull. | 1 | 888 | Ad (Chanting 2000 meters ab.) |
| 1230-1500 | | | | Handling Anchored 2000 m. N. S. ab. |
| 1500 | Red Phalarope. | 5 | 888 | |
| 1515 | Red Phalarope | 1 | | on floaty Macrocystis |
| 1345-1445 | | | | Little pink whale - Stayed abore ship for about a hour. The whale on the pectorals was very well defined. got photos. |
| 1550 | Sooty Shearwater | 2 | on hold | Nice white underwings |
| 1600-1620 | Abondon Ship Bill - | | | |
| 1630 | Red Phalarope | 1 | E | Not in winter plumage. |
| 1643 | " | 2 | w | |
| 1650 | " | 1 | SW | Flying high - Not in winter. |
| 1700 | " | 1 | on hold | |
| 1710 | " | 2 | " | IN winter; 1 winter plumage |
| 1712 | | | | Flying fish (californicus) |
| 1715-1745 | Dinner | | | one group of whales seen during this time |
| 1753 | Storm Pet. sp. | 1 | NW | Not well seen - way out. |
| 1754 | | | | Flying fish (c. californicus) |
| 1806 | | | | Flying fish (c. californicus) |
| 1818 | | | | |
| 1813 | Storm Petrel ✓ | 1 | 888 | Light Feeding, but flight like <u>Oceanodroma</u> |
| | | | up | |

24 April 1967

(9)

| Time | Species | # | Dis | Run |
|-----------|-------------------------------------|------|-------------|---|
| 0600 | begin obs <i>P. p. opisthomelas</i> | 1 | E | S.R. |
| 0600 | start 5 Leucosticte | | | |
| 0621 | " | 1 | E | |
| 0700 | 5ton Pk | 1 | W | All Black ^{blistered with no dark wing} - possible Black St. |
| 0745 | Baird's Dolphin | (15) | | Came to another depth to East. |
| 0800 | | | | change course from 320 to 140 @ 3 km. for other tunnel. |
| 0905 | Western Gull | 1 | 888 | Ad. |
| 0945 | " | 1 | | Ad - Rugged primaries & last wing |
| 1030 | Tern sp. | 2 | 888 | |
| 1035 | Sooty Shearwater | 1 | NE | |
| 1050 | Gull (Sabine) Rel 3 | 1 | NE | |
| 1220 | Bird sp | 1 | 888 | - white - winged. |
| 1305 | Red Phalarope | 3 | 888 | |
| 1308 | Red Phalarope | 1 | ~H, H | Feeding |
| 1320 | " | 1 | ~H, H | |
| 1325 | " | 5 | W | |
| 1350 | Little Billed White | (1) | along side. | surface 10' to out of control - looking very sharp. White feathers on flanks & evident on lateral postorbital |
| 1451 | Red Phalarope | 1 | W | 5 tips & 5 band tail |
| 1530-1645 | | | | close obs - making out not |
| 1530 | Red-billed Gull bird | 1 | 888 | Flies and stays for some time |
| 1700 | Red Phalarope | 3 | N | |
| 1715 | " | 1 | N | |
| 1725 | " | 2 | 888 | |
| 1730 | <i>P. p. affinis opisthomelas</i> | 2 | W | Black dated 1 |
| 1821 | SS | | | |
| 1830 | Prosp bird | 1 | W | way out on horizon ^{possibly on another} not counted |

25 April 1967

(10)

$$\begin{array}{c} 3400 \\ 1400 \\ \hline 2000 \end{array}$$

| 0545 | Begin Obs. | | | |
|-----------|-----------------------------------|---|-----|---|
| 0800 | | | | |
| 0900 | Red Phalarope | 5 | NW | fly in fish |
| 1055 | Whale sp. | 1 | SE | small animal. |
| 1140-1210 | | | | lun-w-l (conservation) |
| 1225 | Red Phalarope | 1 | | |
| 1230 | " | 2 | | |
| 1240 | Sooty Pet. | 1 | | |
| 1253 | Red Phalarope | 2 | | |
| 1259 | P. puffinus opisthomelas | 1 | W | |
| 1400 | Shear/Pet | 1 | SSE | - high Arctig - Puffin Sooty Shear. 1ish on hood near board. No black tail border. |
| 1455 | Sooty Pet - See ^{Pet} w/ | 1 | | |
| 1457 | Red Phalarope. | 2 | | |
| 1508 | " | 5 | | |
| 1509 | Sabine gull | 1 | | Ad Noddy-like head with black wing tips and wing bar. |
| 1625 | Bird sp. | 1 | | |
| 1641 | Puffinus Puffinus. opistho | 2 | W | |
| 1645 | Red Phalarope | 1 | SSE | [Ridley] |
| 1650 | | | | Turtle (wrigley) (Lepidochelys) |

No T. carolinensis - living A. PC

26 April 1967

(11)

| Time | Species | # | Dir | Rem. |
|-----------|-------------------------|------|-----|---|
| 05 | | | | |
| 0550 | Begin obs. | | | off Grindalup Isl. |
| 10555 | P. puffinus opistomelas | 2 | SSE | |
| 10605 | P. puffinus | 8±2 | — | Feeding |
| 10628 | Xantus murrelet | ~ | — | on Huk |
| 0700 | Sabine Gull | 11 | N | — a string that appear to be migratory |
| 0718 | P. puffinus | 1 | SD | They are moving past Grindalup about 3 1/2 miles offshore |
| 0730 | " | 1 | — | |
| 0750 | Western gull | 2 | — | following - Pink foot form. |
| 0900 | Sabine gull | 2 | N | about 2 miles from S Line |
| 1000 | P. puffinus | 2 | — | 10 regulars numbers about. Same on the opposite side from the feeding grounds |
| 1145-1215 | Leuc | | | |
| 1345 | <u>Dolphin</u> | 12±6 | — | <u>Possible Tursiops</u> |
| | | | | Rest of day spent on Grindalup Isl. |

27 April 1967

| | | |
|------|--|------|
| 1800 | even obs of birds working on Islets Negro today. Off the side of Grindalup | |
| 1800 | Western gulls | 20+ |
| 1800 | P. puffinus | 4 |
| 1808 | Tursiops - | 8-10 |

27 April - Grindalup Isl.

28 April 1967

| Time | Species | # | Dis | Rem. |
|-----------|---------------|----|-----|--------------------------|
| 0545 | Bay Is. ohr. | | | |
| 0555 | BFA 1 bat. | 1 | | fo. Young |
| 0932 | Black Petrel | 1 | | |
| 1105 | Red Phalarope | 9 | N | all 1st yr. full plumage |
| 1115 | " | 15 | N | |
| 1120-1200 | Dinner | | | |
| 1300-1500 | | | | |
| 1520 | R Phalaropes | 10 | | |
| 1650 | BFA. | 1 | | Total of 2 |

29 April 1967

(13)

| | | | | |
|------|---|-----------|---------|--|
| 0600 | Reg. Os. | | | lay in luge |
| 0601 | BF & 1/4 Lms | 1 | | Laying to |
| 0620 | " | 1 | | Total of two |
| 0700 | " | 2 | | " ♀ & (followed to 3 miles of Gudalur 5a) |
| 0712 | O. l. (sororina)? | 1 | | sex all black. |
| 0825 | P. puffini opisthomelas | 1 | W | ♂ Black-vented form. |
| 1005 | St. Petrel ^{♂ ad} | 1 | | — All black & small |
| 1028 | St. Petrel ^{♀ ad} ol. - ^{ad 2} | 1 | SPP | Black mixed - light wing coverts |
| 1120 | Sabine Gull | 1 | N | |
| 1234 | Xantus murrelet | 1 | on/ftok | |
| 1615 | P. p. opisthomelas ^{sordidus} | 2000-2800 | | feeding - off So. E corner of Gudalur. |
| 1620 | Relphusin. ^{sordidus} | 214 | | |

30 April — 0800 4 May 1967

Barnacles & Luges Island.

4 May 1967

| | | | | |
|-----------|--|----|----|--|
| 1100 | begin as 6 miles North of Guadalupe Isl. | | | |
| 1130 | close for dinner | | | |
| 1430 | took time to flesh out <u>trawlers</u> . | | | |
| 1450 | Gulls. | 4 | NW | Purple Solina. (flying low over water - fast) |
| 1500 | Red P. Laysan | 8 | NW | |
| 1502 | " | 10 | N | |
| 1510 | " | 3 | NW | |
| 1511 | " | 15 | " | |
| 1512 | " | 12 | " | |
| 1513 | " | 25 | " | Flying very high - up to 100 ft. |
| 1530 | Porpoise | 6 | ? | 6 miles off the bow. |
| 1551 | | | | Flying fish. Large. |
| 1600 | Red P. Laysan | 6 | N | |
| 1610 | " | 1 | NW | |
| 1652 | " | 3 | NW | |
| 1700-1800 | Dinner | | | |
| 1815 | Gull | 1 | N | 200 m H. H. probably a subsonic migration |
| 1855 | Porpoise | 1 | NW | - <u>Dolphin</u> ^{nts} <u>on Laysan</u> |

5-11 May

0700

Western gulls

400±

off Coronados - North, mid. east.

0710

Cormorants

1

8m

off North pt. of N. Coronado Isl.

0715

Zalophus

1

8m

circling fishing vessels

0730

Bull.

0740

Loon (G. arctic)

13

NW

Proba ^{arctic}
~~black~~

0750

Shear/wet.

1

NW

Large - Black bull, & head - under
parts not seen - flight like Puffin - ~~black~~ ^{white}

0720

0832

close to mouth Harbor.

0620

Larus melan

3

0625

Sooty/Slb.

4

0625

Oceanus l.

2

white or no white

0625

Larus occidentalis

1

0629

Gavia

1

NW

pubes arcticus

0632

Larus occ.

1

0650

Delphinus

3+

came to ship

0703

Larus occ.

1

S

Observations from 0620 to 0703 are from C. L. Huber.

Thomas Washington

Log

RECORD

20 April - ^{29 April} Sunday

1967

Ellen B. Scott

30 April - 5 May 1967

7530-222-3525
FEDERAL SUPPLY SERVICE
(GPO)

Pacific Program
Smithsonian Inst.
Washington, D.C.

20560

Robert L. DeLong P.O.B.S.P. Observer.

Cruise: Scripps Institute of Oceanography, Thomas Washington,
Under Direction of Dr. C. L. Shantz.



20 April 1967

N N

| Time | Species | # | Dir. | Remarks | 1610 | Bulls sp. | 1 | middle | Adult. Cl, King, aduler, or H-w Gull. |
|-----------|--|------|--------|---|-----------|------------------------|------|--------|---|
| 0515 | S.R. bay in obs. | | | | 1650 | Gull sp. | 1 | inner | |
| 0530 | Gull sp. (large) | 1 | SW | Imm. bird - light belly/sooty. | 1700-1730 | Seagull - close obs. | | | |
| 0545 | Puffinus sp. ^{guttatus} | 1 | N | Contrasting Dark back, light belly. Underwing not seen. Now, on the water & long lit. | 1730 | Red Phalarope | 1 | W | Identified by call. |
| 0550 | Wester Gull | 1 | SW | following ship | 1745 | Phalarope sp. | 2 | W | Red with a reliability of 2 or 3 |
| 0555 | Shore/Pets. | 5+ | SW | 3) Feeding over a school of feeding fish. | 1805-1812 | Baird (common) dolphin | 15±3 | SW | Can take a hiss & get no ride from the 3 km west of the working boat. |
| | Gulls sp. | 2+ | SW | | | | | | |
| 0602 | Red Phalarope | 1 | SW | | 1820 | Phalarope | 10±3 | W | |
| 0615 | Puffinus sp. ^{guttatus} | 1 | W | Some is above 1000 fms. with several flights of glides. N = anchy. | 1828 | SS - clouds. | | | |
| 0615 | W-W Gull | 1 | S | nd. | | | | | |
| 0625 | BB-F Albatross | 1 | - | following - provided from Navy obs. | | | | | |
| 0640 | Gull sp. | 2 | SE | Imm. Herring Water | | | | | |
| 0645 | Red Phalarope | 35±5 | SW | - same bird with Northwest obs. | | | | | |
| 0705-0730 | Rock flocks | | | | | | | | 90 |
| 0820 | Gull sp. | 1 | S | Large: Adult | | | | | |
| 0835 | Black Petrel | 1 | S | Reliability of 3; however | | | | | |
| 0845 | | | | Re Herring water a clump of mercury & (is generally found only | | | | | |
| | | | | Thus we have general direction of the area. | | | | | |
| 0900 | Sooty Shearwater | 1 | N | White underwing seen well. | | | | | |
| 0910 | Black Petrel | 1 | SW | - or in high Reliability of 3 | | | | | |
| 0930 | At all stops (however for 20 min) | | | working on compass. A Herring to provide 1000 fms. other | | | | | |
| 0935 | Western Gull | 1 | SW | | | | | | |
| 1040 | still at All Stop - close obs. temporally. | | | | | | | | |
| 1130 | Resume no obs. - The Deep drags is now being set. (Deep ^{1600 fms.} set) | | | | | | | | |
| 1430 | Underway @ 160° | | | | | | | | |
| 1545 | | | | BB-F Albatross - apparently same bird | | | | | |
| 1550 | Storm Petrel | 2 | on/off | courses over 30-45 minutes. | | | | | |
| 1600 | Birds sp. sitting on the deep back | 2 | - | One definitely all black. | | | | | |
| | | | | Ad. Brown headed gull or the back | | | | | |
| | | | | a possible gull anterior even reminiscent of a Pintail. | | | | | |

21 April

| Time | Species | Dir | Remarks |
|-----------|--|--------|---|
| 0600 | begin Obs. | | |
| 0610 | Western Gull | N | Two in W. Adult plumage with a few dark feathers running on the tail. |
| 0620 | Rid. sp. | N | |
| 0650 | Shearwater sp. | W | seen briefly |
| 0655-0700 | Baird's Dolphin | E | seen briefly; only two come to the ship |
| 0700-0715 | Br. Fr. | | |
| 0815 | Alcid ^{Xanthous murrelet} Albatross ^{Ad 3} | SE | small - birds. (Puffin x on the Murrelet) |
| 0845 | BF ^{Albatross} | | As albatross, probably the same as yesterday |
| x 1000 | BF Albatross | S | day is around this morning. |
| | | | When we stopped on the Free vehicle not the esp two birds appeared & fed on fish. |
| | | | Three dark murrelets & light murrelet. |
| 1025 | Alcid ^{Xanthous murrelet Ad 3} | out. N | Prob. 1/2 Xanthous Murrelet |
| 1100 | Storm Petrel | S | 8.888 Now white seen definitely but may have been present. |
| 1115-1130 | Lunch close obs. | | |
| 1140-1145 | halibut deep 100 fath. Sel. | | |
| 1400 | resume auditory & obs. | | |
| 1420 | Red Phalaropes | 9 | ON Halt |
| 1435 | Baird's Dolphin | 20 | com. disp. |
| 1510 | Sooty Shearwater | 2 | N |
| 1540 | Baird's Dolphin | 2 | com. disp. |
| 1640 | small gulls? ^{Ad 3} | 5 | |
| 1645 | S. L. sp. | 3 | |
| 1646 | Sooty Shearwater 6/6 | 1 | 5 |
| 1647 | Shear pet. (Pink footed Shear) ^{Ad 3} | 1 | ^{Puffin} Pink footed |
| 1715-1830 | close for Supper | | |
| | Albatross above throughout day. (15) | | |

22 April 1967

| Time | Species | Dir | Remarks |
|------|--|-----|----------------|
| 0512 | Sun Rise | | |
| 0600 | begin Obs. | | |
| 0601 | Western Gull | N | |
| 0605 | " | | |
| 0615 | Shear/Pet. | N | |
| 0620 | Red Phalarope | N | |
| 0625 | " | | |
| 0650 | Red Phalarope | N | |
| 0655 | Western gull | S | |
| 0700 | Jaeger (Puffin) ^{Ad 3} | S | |
| 0703 | B-F Albatross | S | |
| 0715 | Red Phalarope | S | |
| 0725 | Red Phalarope | S | |
| 0732 | " | S | |
| 0737 | " | S | |
| 0740 | " | S | |
| 0743 | Western gull | S | |
| 0745 | Heads Red Phalarope | S | |
| 0800 | (Have had considerable amount of) Macrocystis (the small kelp) floating in pods. | | |
| 0810 | Red Phalarope | S | From or water. |
| 0811 | " | S | |
| 0815 | " | S | |
| 0820 | " | S | |
| 0840 | " | S | |
| 0855 | Red Phalarope | S | |
| 0910 | " | S | |
| 0911 | " | S | |
| 0922 | | | |

22 April

| Time | Species | # | Dir | Remarks | | | | | |
|-----------|---|-----|-----|--|-----------|--|-----|-----|---|
| 0930 | Baird (comm) Dolphin | 7 | E>W | Came to bow but passed on. | 1620 | B-F Albatross | 1 | 811 | Total 43 one will Band |
| 0940 | " | 5 | W | " | 1650 | N. Fur Seal | 1 | ### | around Micronyctis Is. Animal seems young, are no longer some of this S.D. RIO 5 May 1967 |
| 0950 | Red Phalarope | 2 | E | BFA. Total 6 | 1715-1735 | Prius | | | Surf fish 3-3 1/2 ft. 0' |
| 0952 | Baird's Dolph. | (1) | | | 1740 | | | | |
| 1015 | Red Phalarope | 1 | E | Neptunal phalarope | 1800 | Baird, Dolphin | 6 | | Phyg and Bow. |
| 1045 | Western Gull | 1 | SW | Adult. | 1820 | S.S. Close obs. | | | |
| 1046-1115 | herring gull. | | | | 1830 | Sooty Shear. & Pomarine Jaeger seen by Bob Wines | | | |
| 1115-1135 | Lunch. | | | | | | | | |
| 1150 | Western gull | 1 ± | | Total of Adults. | | | | | |
| 1255 | Phalarope (Red) | 3 | SW | | | | 117 | ## | |
| 1310 | Bird sp. | (1) | | | | | | | |
| 1355 | | | | | | | | | |
| 1356 | (Phalarope) | | | | | | | | |
| | All were Delphinus 35±5 mixed species white on dorsal & Delphinus for distinctive markings on hypopygiums | | | Lays (californicus) flying fast off bow mixed pod of Delphinus & Californicus . The animals were not mixed randomly but rather there were two pods of the two species travelling together. Passed the site from east to west. | | | | | |
| 1401 | Red Phalarope | 4 | SW | | | | | | |
| 1420 | | | | | | | | | |
| 1432 | Pomarine Jaeger | 1 | SW | Nasca Boobies | | | | | |
| 1445 | Short-bird sp. | 1 | | Adult; fine turned tail pattern. | | | | | |
| 1451 | Baird's Dolph. | 7 | | -No id. | | | | | |
| 1508 | Tern sp. | 1 | N | Came to bow. | | | | | |
| 1538 | Red Phalarope | 2 | W | small sized; grey mantle, white belly, dark co. | | | | | |
| 1545 | | | | | | | | | |
| 1600 | Red Phalarope | 3 | S | Mixed pod of Delphinus, Delphinus 35±5 Lays, 2 possible Stenell | | | | | |
| 1601 | Sooty Shearwater | 1 | SW | | | | | | |
| 1609 | | | | Surf fish - 2-3 ft in diameter | | | | | |
| 1615 | Red Phalarope | 5 | SW | - on water. | | | | | |

23 April

| Time | Species | # | Dir. | Remarks | | | | | |
|-----------|-----------------|----|--------|---|-----------|-------------------|---|--------|--|
| 0545 | Begin Obs. | | | | 1215 | | | | Floating <u>Pelagophycus</u> - well developed |
| 0545 | Western gull | 1 | 888 | Adult. | 1230 | Western gull | 1 | 888 | Ad (hunting 2000 meters) |
| 0600 | Red Phalarope | 3 | 888 | | 1230-1500 | | | | Hunting Anchored 2000 m. N. S. set. |
| 0608 | " | 10 | N | | 1500 | Red Phalarope | 5 | 888 | |
| 0612 | Western Gull | 1 | 888 | - total of 2 adults | 1515 | Red Phalarope | 1 | | on floating Macrocystis |
| 0655 | B-F Albatross | 1 | 888 | - one following | 1345-1445 | | | | Little pink whale - stayed about 15 min. for about a hour. The whale on the pectorals was very well defined. |
| 0710 | B-F A. | 1 | | 2 following - now on free wheel | | | | | |
| 0715 | Pomarine Jaeger | 1 | on/off | set - flying fast underway 090° @ 10 Km. (changed 10 min.) | | | | | got photos. |
| 0740 | Red Phalarope | 1 | | | 1550 | Sooty Shearwater | 2 | on/off | Nice white underwings |
| 0810 | | | | The Jaeger is still about. | 1600-1620 | Abondon Ship Bird | | | |
| 0833 | | | | flashing | 1630 | Red Phalarope | 1 | E | Not in winter plumage. |
| 0834 | | | | " | 1643 | | 2 | W | |
| 0838 | Red Phalarope | 1 | on/off | Normal plumage. Flying high and to the north. So he is migrating? | 1650 | | 1 | SW | Flying high - normal plumage. |
| 0900 | Western gull | | | Came upon a floating raft of Macrocystis | 1700 | | 1 | on/off | |
| 0900 | Mammals. | | | that was about 15 x 25 ft. Along sides | 1710 | | 2 | 11 | 1 Nutria; 1 winter pluma |
| | Possible | | | this there were two mammals. I believe they were | 1712 | | | | flying fish (californicus) |
| | Mink | | | Steller Sea Lions. It so it represents a southern | 1715-1745 | Dinner | | | one group of whales seen during this time |
| | Whale | | | extension for the species. Will return to attempt | 1753 | Storm Pet. sp. | 1 | NW | Not well seen - way out. |
| | Seal | | | collecting one of the animals. | 1754 | | | | Flying fish (c. californicus) |
| 1010 | | | | Have been stopped for past 10 min. to hunt | 1806 | | | | Flying fish (c. californicus) |
| | | | | free results set. Now underway at 000° @ 10 Km. | 1818 | | | | " " |
| | | | | Set last free results | 1813 | Storm Petrel | 1 | 888 | Light sailing, but flight like <u>Oceanodroma</u> |
| 1030 | Pomarine Jaeger | 2 | on/off | Ad. | | | | | |
| 1045 | | | | around free results set. | | | | | |
| 1100 | | | | return to return long | | | | | |
| 1125-1135 | Lunch closed. | | | ' Flying fish (c. californicus) | | | | | |
| 1155 | | | | off Anchor long - will pull. | | | | | |

24 April 1967

| Time | Species | # | Dir | Remarks |
|-----------|------------------------------|------|-------------|--|
| 0600 | begin obs P. P. opisthomelas | 1 | E | S.R. |
| 0600 | Many S. Laniotars | 1 | E | |
| 0621 | " | 1 | E | |
| 0740 | Ston Pet | 1 | w | All Black - possible black Sh. |
| 0745 | Baird's Dolphin | (15) | | Came to another boat to East. |
| 0800 | | | | change came from 320 to 140 @ 3 km. for other time. |
| 0905 | Western Gull | 1 | SE | ad. |
| 0945 | " | 1 | | Ad - Rugged primaries & soft wing |
| 1030 | Tern sp. | 2 | SE | |
| 1035 | Sooty Shearwater | 1 | NE | |
| 1050 | Gull (Sabine) Rel 3 | 1 | NE | |
| 1220 | Bird sp | 1 | SE | - w. like - anyone, |
| 1305 | Red Phalarope | 3 | SE | |
| 1308 | Red Phalarope | 1 | | ~ H. H. feeding |
| 1320 | " | 1 | NE, N, NW | |
| 1350 | Little Billed Whaler | (1) | along side. | surfaced 10' to port of funnel - looks very short, white feathers on flippers & divided on lateral postembryonic |
| 1451 | Red Phalarope | 1 | w | Stops at funnel |
| 1530-1645 | | 5 | w | close obs - making short port |
| 1530 | Red-billed & Sooty Shear | 1 | SE | flown around ship for some time |
| 1700 | Red Phalarope | 3 | N | |
| 1715 | " | 1 | N | |
| 1725 | " | 2 | SE | |
| 1730 | P. puffinus opisthomelas | 2 | w | Blub dated 8 |
| 1821 | SS | | | |
| 1830 | Tropic bird | 1 | w | way out on ridge ^{possibly onshore} _{not} counted |

25 April 1967

3400
1400
1800

| | | | | |
|-----------|---|---|----------|---|
| 0545 | Begin Obs. | | | |
| 0800 | | | | |
| 0950 | Red Phalarope | 5 | NW | |
| 1055 | W. Gull sp. | 1 | SE | small animal. |
| 1140-1210 | | | | Lunch (or station) |
| 1225 | Red Phalarope | 1 | | |
| 1230 | " | 2 | | |
| 1240 | Ston Pet | 1 | | |
| 1253 | Red Phalarope | 2 | | |
| 1257 | P. puffinus opisthomelas | 1 | w | |
| 1400 | S. Shear/Pet | 1 | SE | - high Arch - possible Sooty Shear. ^{15 km} too good |
| 1455 | Sabine Gull - See ^{Rel 1} Wall | 1 | on board | near board. No black tail border. |
| 1457 | Red Phalarope | 2 | | |
| 1508 | " | 5 | | |
| 1509 | Sabine gull | 1 | | Ad Nobilitated Sabine Gull w/ long ad. wing young & ventral. |
| 1625 | Bird sp. | 1 | | |
| 1641 | Puffinus, Puffin. opistho | 2 | w | |
| 1645 | Red Phalarope | 1 | SE | |
| 1650 | | | | |

So I established - line A 75

26 April 1967

| Time | Species | # | Dir | Rem |
|-----------|---|-----|-----|---|
| 05 | | | | |
| 0550 | Begin obs. <i>P. puffinus</i> ^{Opisthodelos} | 2 | SW | off Guadalupe Isl. |
| 0555 | | 8±2 | | Feeding |
| 0606 | | ~ | | or Hatching |
| 0628 | Xantus murrelet | 11 | N | a string that appears to be migratory; 1120-1200 |
| 0700 | Sabine Gull | 1 | SD | They are moving past Guadalupe about 3 miles off shore |
| 0718 | <i>P. puffinus</i> | 1 | | 1300-1500 |
| 0730 | " | 2 | | Following - pink foot form. |
| 0750 | Western gull | 2 | N | about 2 miles from shore |
| 0900 | Sabine gull | 2 | | irregular wander about. Same on the opposite side from the feeding grounds. |
| 1000 | <i>P. puffinus</i> | 2 | | |
| 1145-1215 | Dinner | | | |
| 1345 | Whales | 124 | | <u>Public Television</u> |

Rest of day was on Guadalupe Isl.

27 April 1967

| | |
|------|--|
| 1800 | even obs of birds looking on about regular today. Off E side of bird |
| 1800 | Western gulls |
| 1800 | <i>P. puffinus</i> |
| 1808 | Twins - |

27 April - Guadalupe Isl.

28 April 1967

| Time | Species | # | Dir | Rem |
|------|---------------|----|-----|-----------------------|
| 0545 | Boys C obs. | 1 | | |
| 0555 | BFA 1 bat. | 1 | | |
| 0932 | Black Petrel | 1 | | |
| 1105 | Red Phalarope | 9 | N | all N/A fuel plumeage |
| 1115 | " | 15 | N | |
| | Dinner | | | |
| 1520 | R Phalarope | 10 | | |
| 1630 | BFA | 1 | | |
| | | | | Total 2 |

27 April 1967 - 10:45 A.M.

10:45 A.M. - 11:45 A.M.

11:45 A.M. - 12:45 P.M.

12:45 P.M. - 1:45 P.M.

1:45 P.M. - 2:45 P.M.

2:45 P.M. - 3:45 P.M.

3:45 P.M. - 4:45 P.M.

4:45 P.M. - 5:45 P.M.

5:45 P.M. - 6:45 P.M.

6:45 P.M. - 7:45 P.M.

7:45 P.M. - 8:45 P.M.

8:45 P.M. - 9:45 P.M.

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9:45 P.M. - 10:45 P.M.

10:45 P.M. - 11:45 A.M.

11:45 A.M. - 12:45 P.M.

12:45 P.M. - 1:45 P.M.

1:45 P

29 April 1967

| | | |
|------|--|-------------|
| 0600 | Reg. o. ls. | |
| 0601 | B.F. R / butins | 1 |
| 0620 | " | 1 |
| 0700 | " | 2 |
| 0712 | O. l. (<i>savocensis</i>)? | 1 |
| 0825 | P. puffini opisthomelas | 1 W |
| 1005 | S. from Pet. ^{7 ados} | 1 |
| 1028 | Sturm Petrel ^{Present} _{ol. - com. ad. 2.} | 1 898 |
| 1120 | Saline Gull | 1 N |
| 1234 | Xantus murrelet | 1 m/f ad |
| 1615 | P. p. opisthomela ^{similis} | 2000-2000-1 |
| 1620 | Dolphin ^{ad. 2.} | 214 |

begin Lucy 1100
Total of two
" of " (followed to 3 miles off
Guadalupe Is.)
saw all bl & N
♂ Black-crested form.
— All bl & Sull
Black mixed - lightning events.

4 May 1967

| | |
|-----------|--|
| 1130 | begin ad. 6 miles north of Guadalupe Is. |
| 1430 | close to. Diving |
| 1450 | Took time to flesh out <u>Turacins</u> . |
| 1502 | Gulls. |
| 1502 | Red P. Laysan |
| 1510 | " |
| 1511 | " |
| 1512 | " |
| 1513 | " |
| 1530 | Porpoise |
| 1551 | — |
| 1600 | Red P. Laysan |
| 1610 | " |
| 1652 | " |
| 1700-1800 | Diving |
| 1805 | Gull |
| 1855 | Porpoise |

begin Lucy 1100
begin ad. 6 miles north of Guadalupe Is.
close to. Diving
Took time to flesh out Turacins.
Gulls.
Red P. Laysan
" 10 N
" 3 NW
" 15 "
" 12 "
" 25 "
Diving Lucy 1100-1500
6 miles off the bone.
6/7 my fish. Large.
Porpoise
Red P. Laysan
" NW
" 3 NW
Diving
Gull
Porpoise
Low M.H.H probably a subspecies migration
— Dolphin ^{ad. 2.} as Lucy only

30 April - 0800 4 May 1967

Guadalupe Island.

5 on way

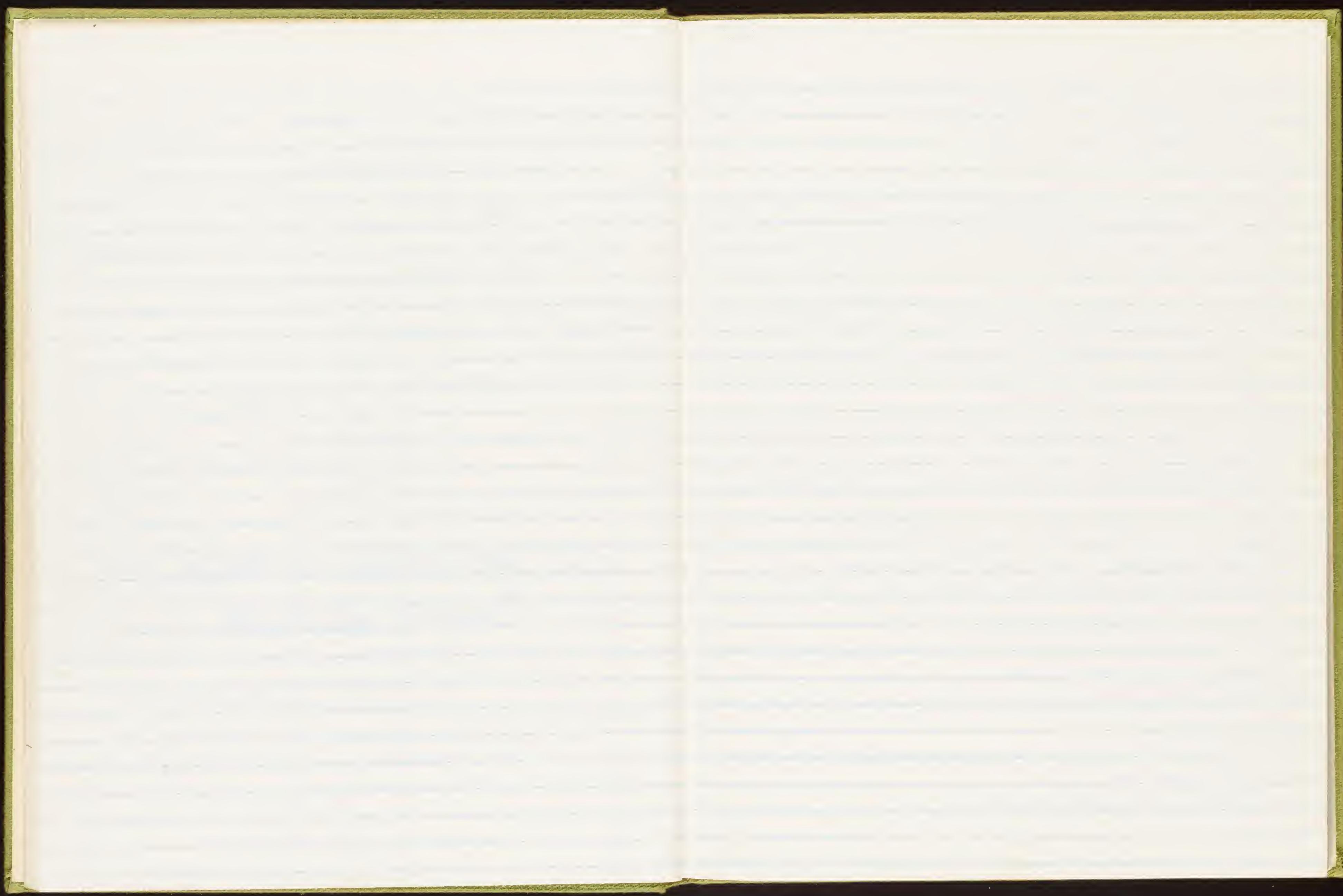
| | | | |
|------|---------------|-------|---|
| 0700 | | | off Coronados - North, middle, islands |
| 0710 | Western gulls | 400 ± | off North pt. of N. Coronado Isd. |
| 0715 | Coronators | 1 | 800 circling fishing vessels |
| 0730 | Zelophorus | 1 | Bull. |
| 0740 | Loon | 13 | NW |
| 0750 | Shear/petrel | 1 | NW Large - Black back, head - under parts white - flight like Puffin - <u>fratercula</u> |
| 0720 | | | just north of N. Isd. of Coronados there was a temporary concentration Jolla. Perhaps 10-15 sq. ft. |

0832 close to mouth Harbor.

| | | | |
|------|-----------------------|----|---------------------------|
| 0620 | <u>Larodina melan</u> | 3 | |
| 0625 | Sooty/Slb. | 4 | |
| 0625 | Oceanodroma l. | 2 | white or no white |
| 0626 | Larus occidentalis | 1 | |
| 0629 | Gannet | 1 | NW <u>purple arcticus</u> |
| 0632 | Larus occ. | 1 | |
| 0650 | Delphinus | 3+ | came to ship |
| 0703 | Larus occ. | 1 | 5 |

or

Observations from 0620 to 0703 are from C. L. Hubbs.





THE *Carillon* HOTEL
OCEANFRONT AT 68th STREET / MIAMI BEACH

M. Flax

10852 Lincoln Dr.
Westwood (Los Angeles), Calif
90024

A.H. Harvey:

150

50¢/m



THE *Carillon* HOTEL

OCEANFRONT AT 68th STREET / MIAMI BEACH

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